

**METHOD AND DEVICE FOR MAKING POWDER OF POLYMERIC MATERIAL****Publication number:** RU2057013**Also published as:****Publication date:** 1996-03-27

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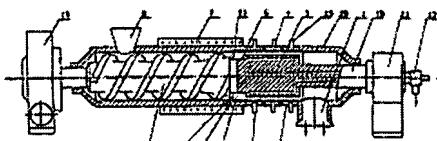
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The method for producing powder from polymeric material includes its heating and subsequent grinding by action of pressure and shearing at values from 0.5 to 50 at simultaneous cooling. The distinction of the method is that heating is carried out up to 30-250 DEG C in two stages: firstly, at a pressure increasing from 0.1-0.5 MPa to 3-100 MPa and, secondly, under isobaric conditions at shearing 0.3-10 during 0.3-5 sec, and said grinding is performed as the pressure is decreased down to 0.1-0.5 MPa. The device for producing powder from polymeric material comprises a grinding chamber having a casing (2) and a grinding rotor (3) in a shape of a body of revolution with an annular clearance (4) towards the inner surface of the casing. The distinction of the device is that it is equipped with a compacting chamber, disposed in alignment with and prior to the grinding chamber, said compacting chamber being designed as a cylindrical casing (8) accommodating a compacting screw (9) with helical channels at its side surface, the depth of said channels being gradually reduced towards the grinding chamber. The purpose of the compacting screw (9) is to convey the material towards the grinding chamber. In the zone between the compacting screw (9) and the grinding rotor (3) a ring-shaped boring (5, 22) 1-8 mm in depth in its shallow section is cut.



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